

HYPERNUMBERS AND OTHER EXOTIC STUFF



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Hedronometry (Dimensionally enhanced Trigonometry) - Blue the hedronometer - <http://daylateanddollarshort.com/mathdocs/>
<https://demonstrations.wolfram.com/CalculusFreeDerivativesOfSineAndCosine/>

A hedronometric theorem of Menger - <https://vdocuments.site/a-hedronometric-theorem-of-menger-day-late-d-a-hedronometric-theorem.html?page=1>

Heron-like Results for Tetrahedral Volume - <https://vdocuments.mx/heron-like-hedronometric-results-for-d-howard-eves-2-notes-the-theorem.html?page=1>

The Descartes Rule of Sweeps - <https://paperzz.com/doc/8687034/the-descartes-rule-of-sweeps-and-the-descartes-signature>
<https://demonstrations.wolfram.com/DescartesSignatureExplorer/>

Pseudofaces of tetrahedra - <https://paperzz.com/doc/8457999/pseudofaces-of-tetrahedra-the-law-of-cosines-for>

Motivation for spectral graph theory - <https://9to5science.com/motivation-for-spectral-graph-theory>

Spectral Realizations of Polyhedral Skeleta - <https://www.youtube.com/watch?v=zfOf-Q7TL8g>

<https://web.archive.org/web/20100304213630/http://demonstrations.wolfram.com/SpectralRealizationsOfPolyhedralSkeleta/>

A SIX-POINT CEVA-MENELAUS THEOREM - <https://arxiv.org/pdf/1403.0478.pdf>

Trigonometry of a tetrahedron - https://en.wikipedia.org/wiki/Trigonometry_of_a_tetrahedron

Three dimensional geometry, ZOME, and the elusive tetrahedron

https://www.maths.unsw.edu.au/sites/default/files/3dgeom_zome_tetrahedron_seminar.pdf

La géométrie des tétraèdres - Philippe Tilleul

A New and Very Long Proof of the Pythagoras Theorem - Kaushik Basu - <http://kaushikbasu.org/Pythagoras%206.pdf>

Ternary arithmetic, factorization, and the class number one problem - Aram Bingham - <https://arxiv.org/pdf/2002.02059v2.pdf>

Parallelogon - <https://en.wikipedia.org/wiki/Parallelogon>

Trigonal trapezohedral honeycomb - https://en.wikipedia.org/wiki/Trigonal_trapezohedral_honeycomb

Rhombic dodecahedral honeycomb - https://en.wikipedia.org/wiki/Rhombic_dodecahedral_honeycomb

Maxicode - <https://en.wikipedia.org/wiki/Maxicode>

Solid Geometry with Problems and Applications - H. E. Slaught and N. J. Lennes - <https://www.gutenberg.org/files/29807/29807-pdf.pdf>

Polyhedral angle - https://encyclopediaofmath.org/wiki/Polyhedral_angle

Cubic Pythagoras – Luis Teia (pythagoras with cubes instead of squares)

<https://wonderfulengineering.com/pythagoras-theorem-has-been-upgraded-to-3d-and-now-requires-a-120-page-proof/>

Geometry of the 3D Pythagoras' Theorem - <https://www.youtube.com/watch?v=QWPuPX5DHII>

<https://web.archive.org/web/20170922045632/http://www.ccsenet.org/journal/index.php/jmr/article/viewFile/64646/34833>

Fermat's Theorem – a Geometrical View

https://www.researchgate.net/profile/Luis-Teia/publication/312607399_Fermat's_Theorem_-_a_Geometrical_View/links/58863f6d92851c21ff4d5825/Fermats-Theorem-a-Geometrical-View.pdf

Heavenly Mathematics The Forgotten Art of Spherical Trigonometry - Glen Van Brummelen

<https://www.amazon.com/Heavenly-Mathematics-Forgotten-Spherical-Trigonometry/dp/0691175993>

The Theorem of Trithagoras; Pythagoras is for Squares - Dave Mitchell - <https://latticelabyrinths.wordpress.com/2018/01/13/the-theorem-of-trithagoras-pythagoras-is-for-squares-the-mathsjam-2017-five-minute-presentation/>

Pythagoras theorem variation - Claudi Alsina - <http://claudialsina.com/wp-content/uploads/2016/10/newpythlikethms.pdf>

Extended Pythagoras Theorem Using Hexagons - Luis Teia

https://www.researchgate.net/publication/356441337_Extended_Pythagoras_Theorem_Using_Hexagons

Extended Pythagoras Theorem using Triangles, and its Applications to Engineering - Luis Teia

https://www.researchgate.net/publication/357896374_Extended_Pythagoras_Theorem_using_Triangles_and_its_Applications_to_Engineering

The Eutrigon Theorem - a new* twin to the theorem of Pythagoras

https://www.principlesofnature.com/number_geometry_connections/new_angles_on_triangles_and_theorems_the_eutrigon_theorem.htm

Is the dominance of right triangles and squares justified from a scale structure perspective?

https://www.principlesofnature.com/number_geometry_connections/reassessing_the_dominance_of_right_triangles_and_squares_in_geometry.htm

Duocode, a parallel of the unicode standard for hexagonal typesetting - Alexander Egorov

Hex Grid Geometry for Game Developers - Herman Tulleken - <http://gamelogic.co.za/downloads/HexMath2.pdf>

'Tetrahedral' coordinates in space (generalization of hexagonal coordinates)

<https://math.stackexchange.com/questions/1861635/tetrahedral-coordinates-in-space-generalization-of-hexagonal-coordinates>

Topology Optimization with Tetra-kai-decahedra and Spheroidal Masks - Nikhil Singh and Anupam Saxena

https://www.researchgate.net/publication/358345870_Topology_Optimization_with_Tetra-kai-decahedra_and_Spheroidal_Masks

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<https://hexagon.link/> && <https://hexagontruth.github.io/hexular/> && <https://twitter.com/hexagonalnews>

Hexagonal Awareness - <https://www.youtube.com/channel/UCf-ml0bmw7OJZHZCIB0cx3g/videos>

Polynumbers, Norms, Metrics, and Polyingles - R R Aidagulov and M V Shamolin

https://www.researchgate.net/publication/270597014_Polynumbers_Norms_Metrics_and_Polyingles

Finsler Spaces, Bingles, Polyingles, and Their Symmetry Groups - R. R. Aidagulov and Maxim V. Shamolin

https://www.researchgate.net/publication/270597384_Finsler_Spaces_Bingles_Polyingles_and_Their_Symmetry_Groups

Taxicab Angles and Trigonometry - Kevin Thompson and Tevian Dray - <https://arxiv.org/pdf/1101.2917.pdf>

Divine Proportions: Rational Trigonometry to Universal Geometry - Norman J. Wildberger

<https://www.amazon.com/Divine-Proportions-Rational-Trigonometry-Universal/dp/097574920X>

Wildberger 's channel - <https://www.youtube.com/user/njwildberger>

Rational trigonometry - https://handwiki.org/wiki/Rational_trigonometry

Pascal simplex - https://en.wikipedia.org/wiki/Pascal's_simplex

Using Chinese Dumbass Notation to Find Algebraic Identities Daniel - Liu Daniel Liu

https://www.academia.edu/11576181/Using_Chinese_Dumbass_Notation_to_Find_Algebraic_Identities

Introduction to the General Trigonometry in Euclidian 2D-space - Claude Ziad Bayeh

<http://www.wseas.us/e-library/transactions/mathematics/2012/53-882.pdf>

Plimpton 322 is Babylonian exact sexagesimal trigonometry - Daniel Francis Mansfield and Norman Wildberger

https://www.researchgate.net/publication/319286288_Plimpton_322_is_Babylonian_exact_hexagesimal_trigonometry

Old Babylonian mathematics and Plimpton 322: A new understanding of the OB tablet Plimpton 322

<https://www.youtube.com/watch?v=L24GzTaOll0>

(6) SOFTWARE ZONE

DATA STRUCTURES*

Treesheet (tree-like spreadsheet) - <http://strlen.com/treesheets/>

Blockchain (demo) - <https://andersbrownworth.com/blockchain/>

Heimer (mind map) - <https://github.com/juzzlin/Heimer>

DAS-UI <https://das-ui.firebaseioapp.com/> && <https://szymonkaliski.com/writing/2017-09-08-building-das-ui/>

Enso (diagrammatic coding) - <https://enso.org/language>

Orca (procedural sequencers) - <https://github.com/Hundredrabbits/Orca>

Taichi (spatially sparse multi-level data structures) - <https://github.com/taichi-dev/taichi>

Rasdaman (datacube and arrays) - <http://www.rasdaman.org/wiki>

Categorical Data (data-related tasks using category theory) - <https://www.categoricaldata.net/>

Egison (efficient non-linear pattern matching with backtracking for non-free data type) - <https://www.egison.org/>

Eve (uniform data-processing) - <http://witheve.com/>

Fluidinfo (columnar shareable data) - <https://github.com/fluidinfo> && <https://en.wikipedia.org/wiki/Fluidinfo>

MentDB (world wide Data) - https://www.mentdb.org/mentdb_weak.html

Obsidian (knowledge base on top of your local folder of plain text files) - <https://obsidian.md/>

LSQL (query language for large language models) - <https://github.com/eth-sri/lsql>

STRUCTS* WITH META

Bedrock (meta-distro) <https://bedrocklinux.org/>

Funtoo (meta-distro) - <https://www.funtoo.org/Welcome>

T2 System Development Environment (meta-distro) - <https://t2sde.org/index.cgi>

DL Linux (meta-meta-distro) - <https://web.archive.org/web/20181221164035/https://www.sudosatirical.com/articles/dl-linux-0-0-1-released/>

Black (reflective) - <http://pllab.is.ocha.ac.jp/~asai/Black/>

Terra (meta-programming) - <http://terralang.org/>

MetaL (meta-language) - <https://www.meta-language.net/faq.html#what>

Rinci (metadata specifications) - <https://metacpan.org/pod/Rinci#ABSTRACT>

Circle (meta-programming) - <https://www.circle-lang.org/>

Hackett (meta-programming) - <https://lexi-lambda.github.io/hackett/>

Elena (polymorphic code) - <https://github.com/ELENA-LANG/elena-lang/wiki/ELENA-Programming-Manual#overview>

Beluga (mechanizing meta-theory) - <https://www.cs.mcgill.ca/~complogic/beluga/index.html>
Hazel (incomplete programs) - <https://hazel.org/>
Autohotkey (gui and scripting automation for windows) - <https://www.autohotkey.com/>
Rosie Pattern (beyond regex) - <https://rosie-lang.org/about/>
Antipurity (self-aware interpreter) - <https://github.com/Antipurity/conceptual>
Multicompiler (defensive compiler) - <https://immunant.com/blog/2018/09/multicompiler/>
Avail (articulate programming) - <https://www.availlang.org/about-avail/introduction/index.html>
Push (evolutionary computing) - <https://faculty.hampshire.edu/lspector/push.html>
Wyvern (built-in skill for large-scale design) - <https://wyvernlang.github.io/>
Gen (probabilistic) - <https://probcomp.github.io/Gen/>
Pyro (probabilistic) - <https://pyro.ai/>
Rascal (meta-programming) - <https://www.rascal-mpl.org/>
Pharo (software as objects, immersive) - <https://pharo.org/features>
Cairo (provable programs and nondeterministic jumps) - https://www.cairo-lang.org/docs/how_cairo_works/cairo_intro.html

SOUND*

Gwion - <https://gwion.github.io/Gwion/>
Kronos vesaronilo - <http://kronos.vesanorilo.com/>
Supercollider - <https://supercollider.github.io/>
Faust - <https://faust.grame.fr/>
Chuck - <http://chuck.cs.princeton.edu/>

NETWORKING*

Live Raizo (network simulation) - <https://sourceforge.net/projects/live-raizo/>
P4 (implement specific network behaviours) - <https://p4.org/>
Helena (browsing automation) - <https://helena-lang.org/>
Volunia (rpg-like browser) <http://www.volunia.com/>
Gather (rpg-like meetings) - <https://www.gather.town/>
Lynx (textual browser) - [https://en.wikipedia.org/wiki/Lynx_\(web_browser\)](https://en.wikipedia.org/wiki/Lynx_(web_browser))
Beaker Browser (peer-to-peer Web browser) - <https://beakerbrowser.com/>
Nyxt browser (keyboard-driven browser) - <https://github.com/atlas-engineer/nyxt>
Jolie (microservices) - <https://www.jolie-lang.org/>
Daphile (headless music server) - <https://www.daphile.com/>
Skywave linux (software defined radio servers) - <https://skywavelinux.com/>
Gotenna (off-grid mobile mesh) - <https://gotenna.com/>
Manyverse (off-grid social networking) - <https://www.manyver.se/faq/what-is-manyverse>
p2p networking - <https://www.gnunet.org/en/> <https://zeronet.io/> <https://freenetproject.org/>
Eternal-september private news server (usenet) - <http://eternal-september.org/>
Aioe.org public news server (usenet) - <https://news.aioe.org/>
What is the Usenet improvement Project? - <http://twovoyagers.com/improve-usenet.org/>
Fediverse (federated servers for web-publishing) - <https://en.wikipedia.org/wiki/Fediverse>

SMART CONTRACT AND RELATED STUFF

Solidity - <https://github.com/ethereum/solidity>
Obsidian - <http://obsidian-lang.com/>
Miniscript - <https://bitcoin.sipa.be/miniscript>
Tact - <https://tact-lang.org/>
Sophia - <https://github.com/aeternity/aesophia>
Daml - <https://docs.daml.com/concepts/glossary.html#key-concepts>
Clarity - <https://clarity-lang.org/>
Pact - <https://docs.kadena.io/learn-pact/beginner/welcome-to-pact>
Fe - <https://fe-lang.org/>
Sui Move - <https://docs.sui.io/build/move>
Vyper - <https://docs.vyperlang.org/en/stable/>
Ligo - <https://ligolang.org/?lang=jsligo>

OPERATING SYSTEM*

XOD.IO (microcontrollers) - <https://xod.io/>
Elemental Processor SIMulator - <https://wepsim.github.io/>
Mikrocodesimulator MikroSim 2010 (microcode) - http://www.mikrocodesimulator.de/index_eng.php
Katai Struct (binary data structures) - <https://kaitai.io/>
Snowdrop OS (16-Bit Operating System) - <http://sebastianmihai.com/snowdrop/>
Turbo Rascal (design of 8-bit/16-bit games) - <https://lemonspawn.com/turbo-rascal-syntax-error-expected-but-begin/>
Tunguska (a ternary computer emulator) - Viktor Lofgren - <http://tunguska.sourceforge.net/>
The Trillium Architecture - Douglas W. Jones - <http://homepage.divms.uiowa.edu/~jones/ternary/trillium.shtml>

Red (full-stack) - <https://www.red-lang.org/p/about.html>
Racket - <https://racket-lang.org/> && Neverlang - <https://cazzola.di.unimi.it/neverlang2.html> (language creation)
Rescatus - <https://www.supergrubdisk.org/rescatux/> && Parted Magic - <https://partedmagic.com/> (OSes for rescue and recovery)
Minix - <https://www.minix3.org/> && 'An Open Letter to Intel' - <https://www.cs.vu.nl/~ast/intel/>
Los Procesadores Intel tienen un Secreto Misterio - <https://www.youtube.com/watch?v=CaLb7waR6eo>
Debian-hurd (debian over Hurd) - <https://www.debian.org/ports/hurd/> https://en.wikipedia.org/wiki/GNU_Hurd
Trisquel (ubuntu over Libre-Linux) - <https://trisquel.info/>
Ratpoison (Window Manager) - <https://www.nongnu.org/ratpoison/>
IceWM (Window Manager) - <https://ice-wm.org/>
RedoxOS - <https://doc.redox-os.org/book/ch01-06-how-redox-compares.html>
Linux From Scratch! - <https://www.linuxfromscratch.org/>

LANGUAGE*

Sono (linguistic study) - <https://github.com/Nallantli/Sono>
Quorum (evidence-oriented) - <https://quorumlanguag.com/reference.html>
Inform7 (interactive narrative, textual adventures) - <http://inform7.com/>
Poliqarp (universal concordancer for large corpora) - <http://poliqarp.sourceforge.net/about.html>
Paper generator - https://en.wikipedia.org/wiki/Paper_generator

GRAPHICS*

Curv (mathematical methods for art design)- <https://github.com/curv3d/curv>
GraRLS (static graphic images) - <http://www.grarls.org/>
KUIML (skin and GUI) - <https://www.bluecataudio.com/Vault/Skins/KUIML/>
Complexities of Color in Computing - Ellen Wondra - <https://www.youtube.com/watch?v=VCvOwoeOgv8>
Dr Huang's Math Handbook Calculator - <http://drhuang.com/> && <http://drhuang.com/science/mathematics/software/>
Draw2D (diagrams) - <http://www.draw2d.org/draw2d/examples.html>
Threejs (creation of 3D content) - <https://threejs.org/manual/#en/fundamentals>
Video (video editing) - <https://lang.video/>
SciLab (numerical computation) - <https://www.scilab.org/>
to line 187 move to second document <https://ziglang.org/learn/overview/> <https://github.com/grain-lang/grain>

(7) CYBERNETICS

The Cybernetic Foundation of Mathematics (Semantic graphs and Labeling rules at pages 118 - 121)
https://pat.keldysh.ru/~roman/doc/Turchin/1983_Turchin_The_Cybernetic_Foundation_of_Mathematics.pdf
Valentin Turchin - <https://pat.keldysh.ru/~roman/doc/Turchin/>

Diagnosing the System for Organizations - Stafford Beer
<https://www.amazon.com/Diagnosing-System-Organizations-Stafford-Beer/dp/0471951366>
Beyond Dispute: The Invention of Team Syntegrity
<https://www.amazon.com/Beyond-Dispute-Invention-Team-Syntegrity/dp/0471944513>
Viable system model - https://en.wikipedia.org/wiki/Viable_system_model
How Many Grapes Went Into the Wine - Stafford Beer (see chapter 'The Irrelevance of Automation')
<https://www.amazon.com/Many-Grapes-Went-into-Wine/dp/0471942960>

Cybersyn - <http://www.cybersyn.cl/> && <http://wiki.p2pfoundation.net/Cybersyn>
'Chile Secreto Capítulo 3 : Proyecto Cybersyn' - <https://www.youtube.com/watch?v=4cK7RRH2dX0>

Homeostat - <http://pespmc1.vub.ac.be/ASC/HOMEOSTAT.html> && Variety - [https://en.wikipedia.org/wiki/Variety_\(cybernetics\)](https://en.wikipedia.org/wiki/Variety_(cybernetics))

Engineering cybernetics: 60 years in the making - Zhiqiang Gao
https://www.researchgate.net/publication/271917376_Engineering_cybernetics_60_years_in_the_making
Engineering Cybernetics - Hsue-Shen Tsien [Qian Xuesen] - <https://babel.hathitrust.org/cgi/pt?id=uc1.b3734950&view=1up&seq=7>
Man–Machine–Environment System Engineering Proceedings of the 17th International Conference on MMESE - S. Long and B. Dhillon

The energy evolution - <https://www.amazon.com/Energy-Evolution-Schaubergers-Eco-technology-Schauberger/dp/B00IGYQ24U>
The Fertile Earth - <https://www.amazon.com/Fertile-Earth-Agriculture-Fertilisation-Ecotechnology/dp/B01FGORR8M>

Cypherpunk - <https://en.wikipedia.org/wiki/Cypherpunk>

Plexil (robotics and systems) - <http://plexil.sourceforge.net/wiki/index.php/Overview>
Modelica (language for modeling of cyber-physical systems) - <https://modelica.org/modelicalanguage.html>

Resource Based Economy - https://www.youtube.com/watch?v=_EkMjTnWk14 && <https://www.resourcebasedeconomy.org/>
Center for Resource Management - <https://www.thevenusproject.com/center-for-resource-management/>

Self Erecting Structures - <https://www.youtube.com/watch?v=CM8bNZTvX3A>
Comparison with current technologies - <https://www.youtube.com/watch?v=T9c821s9mjw>
RBE TVP research center mix - <https://www.youtube.com/watch?v=Jy967Y0OsWY>

Destiny and Control in Human Systems Studies in the Interactive Connectedness of Time - Charles Muses
<https://www.amazon.co.uk/Destiny-control-human-systems-chronotopology/dp/157898727X>
SUPL (Syntactic Universal Programming Language): a new dimension in software design and artificial intelligence
How to make a stupid machine clever by cybernetically opportunistic programming
Cybernetics today and tomorrow: The place of hypernumbers

(8) NUMERALS ON CONSCIOUSNESS

Cognitive-Theoretic Model of the Universe (CTMU) - Christopher Langan - <http://hology.org/>
Chris Langan on IQ, The Singularity, Free Will, Psychedelics, CTMU, and God - <https://www.youtube.com/watch?v=N-bRM1kYuNA>
CTMU Wiki - <https://ctmucommunity.org/wiki/> && CTMU Papers <http://hology.org/ctmu-papers/>
Interview of Langan by Michael Knowles - <https://www.youtube.com/watch?v=11-ckSz6FrQ>
Chris Langan Λ Kastrup on Consciousness, Metaphysics, Computation, and God - <https://www.youtube.com/watch?v=HsXxgQy4xLQ>

La Teoria Sintética - Jacobo Grinberg-Zylberbaum
<https://www.amazon.com/Teor%C3%ADA-Sintergica-Spanish-Jacobo-Grinberg-Zylberbaum/dp/B08JB1XL3C>

Hiroshi Motoyama - Toward a Superconsciousness: Meditational Theory and Practice
<https://www.amazon.com/Toward-Superconsciousness-Meditational-Theory-Practice/dp/0895819147>

International Journal of Mathematics and Consciousness - <http://www.ijmac.com/papers>
Consciousness Is All There Is: A Mathematical Approach with Applications - Tony Nader
<http://www.ijmac.com/wp-content/uploads/2015/12/all05.pdf>

Glasgow_Coma_Scale - https://en.wikipedia.org/wiki/Glasgow_Coma_Scale#Scoring
Levels of consciousness - https://en.wikipedia.org/wiki/Altered_level_of_consciousness#Definition
Schmidt sting pain index - https://en.wikipedia.org/wiki/Schmidt_sting_pain_index

Strange loop - https://en.wikipedia.org/wiki/Strange_loop
I Am a Strange Loop - Douglas R. Hofstadter - <https://www.amazon.com/Am-Strange-Loop-Douglas-Hofstadter-ebook/dp/B004PYDBS0>

Psychedelic Information Theory: Shamanism in the Age of Reason - James L. Kent
<https://www.amazon.com/Psychedelic-Information-Theory-Shamanism-Reason/dp/1453760172>
Geometry of Trips - <https://psychonautwiki.org/wiki/Geometry>
Polynomial Root-finding and Polynomiography - Bhaman Kalantari (see section 'Polynomiography based on Voronoi coloring')
<https://www.amazon.com/Polynomial-Root-finding-Polynomiography-Bahman-Kalantari/dp/9812700595>
Pascalejandro – Alejandro Jodorowsky and Pascal Montandon - <http://pascalemontandon.com/albums-work/pascalejandro/>
<https://archive.org/details/humankind-fundamental-teachings>

(9) BEYOND COMPLEX NUMBERS AND THE PLANE

Dual Quaternion - https://en.wikipedia.org/wiki/Dual_quaternion

Truly hypocomplex numbers : Unification of numbers and vectors - Redouane Bouhennache - <https://arxiv.org/pdf/1409.2757.pdf>

On a novel 3D hypercomplex number system - Shlomo Jacobi - <https://arxiv.org/pdf/1509.01459.pdf>

Generalizaciones de los números: de la aritmética a las variedades diferenciables - Fernando Etayo Gordejuela
<https://repositorio.unican.es/xmlui/bitstream/handle/10902/13817/2016GacRSocMatEspGeneralization.pdf?sequence=1&isAllowed=y>

Ensemble de nombres - Taladris, Silk78, Seirios, Telchar, Tigerfou and Médiat - <https://forums.futura-sciences.com/mathematiques/>

NOMBRES : CURIOSITÉS, THÉORIE, USAGE - Gérard Villemin - <http://villemin.gerard.free.fr/>

Theory of 3D complex space and complex number of 3D space, applications and experimental validation techniques - L.T. Abobda
https://www.researchgate.net/publication/301627462_Theory_of_3D_complex_space_and_complex_number_of_3D_space_applications_and_experimental_validation_techniques

Understanding & Using "nuReal numbers" 6.0 - John A. Shuster
https://www.researchgate.net/publication/362850567_Understanding_Using_nuReal_Numbers

Hoop Algebras - Roger Beresford (orthogonal roots of unity, conjugates and signs distinct of the usual cyclotomic machinery)
Hoop Algebras and Physics - https://library.wolfram.com/infocenter/MathSource/6198/Hoops&Physics.doc?file_id=6093
Hoop Algebra Supplement - https://library.wolfram.com/infocenter/MathSource/6198/HoopAlgebraSupplement.doc?file_id=6092
Wolfram library of Roger - <https://library.wolfram.com/infocenter/MathSource/6198/>
Wolfram demos of Roger - <https://demonstrations.wolfram.com/author.html?author=Roger+Beresford>
https://library.wolfram.com/infocenter/search/?search_results=1&search_person_id=4705
Algebraic loop - <https://mathworld.wolfram.com/AlgebraicLoop.html>
Moufang loop - https://groupprops.subwiki.org/wiki/Moufang_loop

Reinko Venema's blog about 3d numbers and miscellaneous topics - <http://3dcomplexnumbers.net/>

On the Extension of Complex Numbers - Nicholas Gauguin Houghton-Larsen
<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.304.5052&rep=rep1&type=pdf>

Hypercomplex number in three dimensional spaces - Abdelkarim Assoul
https://www.researchgate.net/publication/308969073_Hypercomplex_number_in_three_dimensional_spaces_hal-01686021

Solving Quaternion Quadratic Equations - Peter Michael Jack - <https://archive.org/details/q2wp01>

A System of Three-Dimensional complex variables - E. Dale Martin
<https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19880004569.pdf>

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Counting Parallel Segments: New Variants of Pick's Area Theorem - Alexander Belyaev and Pierre-Alain Fayolle
<https://link.springer.com/article/10.1007/s00283-019-09921-8>

Parameterizing the Trifocal Tensor - Silver (Joni) De Guzman and Anthony Thomas
https://cseweb.ucsd.edu/classes/sp17/cse252C-a/CSE252C_20170510.pdf

The Great Pi Conspiracy - Mark and Scott Wollum - <https://omnithought.org/great-pi-conspiracy/2584>

Quasic blog - L. Edgar Otto - <https://pesla.blogspot.com/>

Spiritual Mathematics: Introduction to the Circular Number System – John Dunne-Brady
https://books.google.cl/books?id=dDPgAgAAQBAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Nova processes - Ted Gress - <https://www.twilightraven.net/> && <http://vixra.org/pdf/1804.0337v1.pdf>

Tetryonics – <https://tetryonics.com/>

The Mathematics of Urban Morphology - Luca D'Acci (Editor)
<https://www.amazon.com/Mathematics-Morphology-Simulation-Engineering-Technology/dp/3030123804>

(13) LISTS OF OPEN PROBLEMS

Darpa 23 Maths Problems - <https://compmath.wordpress.com/about/10-the-big-picture-darpas-23-challenge-questions/>

Problems of the Wolfram Project - <https://www.wolframsience.com/openproblems/NKSOpenProblems.pdf>
<http://mathworld.wolfram.com/UnsolvedProblems.html>

Open problems in Mathematics - John Forbes Nash Jr and Michael Rassias
<http://www.mthrassias.com/data/uploads/bfm3a978-3-319-32162-22f1.pdf>

Worlds to Die Harder For Open Oracle Questions for the 21st Century - Lance Fortnow
<https://lance.fortnow.com/papers/files/open-oracle-survey.pdf>

People, Problems, and Proofs - Richard J. Lipton and Kenneth W. Regan
<https://www.amazon.com/People-Problems-Proofs-Essays-G%C3%B6del/dp/3642414214>

Erdős' Problems on Graphs - students of Fan Chung - <https://mathweb.ucsd.edu/~erdosproblems/>

Open problems in Tetration - <https://math.eretrandre.org/tetrationforum/showthread.php?tid=162>

Open problems of The geometry junkyard - <https://www.ics.uci.edu/~eppstein/junkyard/open.html>

A quest for Exactness : machines, algebra and geometry for trational constructions of differential equations - Pietro Milici
<https://tel.archives-ouvertes.fr/tel-01889365/document> (See section "7.3 Open problems and perspectives")

100 Great Problems of Elementary Mathematics their history and solution - Heinrich Dorrie (solved problems)
<https://www.amazon.com/Great-Problems-Elementary-Mathematics-Dover/dp/0486613488>

Lims 23 Mathematical challenges (London Institute for Mathematical Sciences <https://lims.ac.uk/about/>)
<https://lims.ac.uk/23-mathematical-challenges/>

